

[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2017-0710; Product Identifier 2017-NM-019-AD; Amendment 39-

19098; AD 2017-23-04]

**RIN 2120-AA64** 

**Airworthiness Directives;** Airbus Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Airbus Model A300 B4-600R series airplanes; Model A300 B4-603, B4-620, and B4-622 airplanes; Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R airplanes. This AD was prompted by a determination that the top stringer joints at rib 18 are an area of uniform stress distribution, which indicates that cracks may develop in adjacent stringers at the same time. This AD requires an inspection of the upper wing skin and top stringer joints, and modification of the stringer joint couplings if necessary. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airwortheas@airbus.com; Internet http://www.airbus.com. You may view this referenced service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0710.

# **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0710; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.

#### **SUPPLEMENTARY INFORMATION:**

#### Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus Model A300 B4-600R series airplanes; Model A300 B4-603, B4-620, and B4-622 airplanes; Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R airplanes. The NPRM published in the Federal Register on July 27, 2017 (82 FR 34885) ("the NPRM"). The NPRM was prompted by a determination that the top stringer joints at rib 18 are an area of uniform stress distribution, which indicates that cracks may develop in adjacent stringers at the same time. The NPRM proposed to require an inspection of the upper wing skin and top stringer joints, and modification of the stringer joint couplings if necessary. We are issuing this AD to detect and correct damage (including cracking) at the stringer joints, which could reduce the structural integrity of the wing.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0023, dated February 10, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Airbus Model A300 B4-600R series airplanes; Model A300 B4-603, B4-620, and B4-622 airplanes;

Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R airplanes. The MCAI states:

In response to the FAA Part 26 rule change concerning Widespread Fatigue Damage (WFD), all wing structural items of the A300-600 design deemed potentially susceptible to WFD were assessed. The top stringer joints at Rib 18 were highlighted as an area of uniform stress distribution, indicating that cracks may develop in adjacent stringers at the same time which is known as Multi Element Damage (MED). Each affected stringer joint consists of three main load transferring parts: an overlapping flange, two straps attached through the stringer web and a strap on the top flange. All the components of the joint are attached with fasteners. The fastener holes were the subject of a MED WFD analysis, which showed that cracking could occur from a number of the holes in the joint on stringers 11, 12, 13, 14, 15, 16, 17, and 18.

This condition, if not detected and corrected, could reduce the structural integrity of the wing.

Prompted by the conclusion of the WFD analysis, Airbus issued Service Bulletin (SB) A300-57-6118 to provide modification instructions. The modification will both re-life via oversizing and inspect via non-destructive test a defined number of stringer joint fastener holes at Rib 18. This modification will delay the onset of cracking at the stringer joint, providing it is completed at the specified time and will delay the requirement for subsequent inspection.

For the reasons described above, this [EASA] AD requires a detailed visual inspection (DVI) [for damage, including cracking] of the upper wing skin and the top stringer joints at Rib 18, [and corrective action if necessary] and modification of the stringer joint couplings at Rib 18, on both wings [as applicable].

The modification includes a related investigative action, i.e., a special detailed (roto-probe) inspection for damage, including cracking, of the fastener holes in the upper

wing skin, and corrective action if necessary. Corrective actions include repairing any damage.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0710.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

## **Request to Update the Costs of Compliance**

FedEx supported the intent of the NPRM, but requested that we update the parts cost in the Costs of Compliance section of the proposed AD to reflect the cost of two parts kits. FedEx noted that the proposed AD listed the parts cost for only one kit. FedEx pointed out that operators may need to modify both wings and could therefore need two parts kits per airplane.

We agree with the commenter's request. We have revised the Costs of Compliance section of this final rule to reflect two parts kits, each costing \$4,770.

# Request to Fix a Typographical Error

Airbus requested that we correct a reference to "Airbus Model A300 C4-605 Variant F" airplanes in paragraph (g)(2) of the proposed AD. The correct model name is "A300 C4-605R Variant F" airplanes.

We agree with the commenter's request. We have corrected the typographical error in this AD.

#### Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

# Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017. This service information describes procedures for an inspection of the upper wing skin and top stringer joints at rib 18, and modification of the stringer joint couplings. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Costs of Compliance**

We estimate that this AD affects 65 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### **Estimated costs**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection and modification	37 work-hours <i>X</i> \$85 per hour = \$3,145	Up to \$9,540	Up to \$12,685	Up to \$824,525

We have received no definitive data that will allow us to provide cost estimates for certain on-condition actions specified in this AD.

# **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance

and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
  - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2017-23-04 Airbus:** Amendment 39-19098; Docket No. FAA-2017-0710; Product Identifier 2017-NM-019-AD.

#### (a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### (b) Affected ADs

None.

# (c) Applicability

This AD applies to Airbus Model A300 B4-605R, B4-622R, B4-603, C4-605R Variant F, B4-620, B4-622, and F4-605R airplanes, certificated in any category, all serial numbers except Model A300 F4-605R airplanes that have embodied Airbus modification 12699 in production.

# (d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

## (e) Reason

This AD was prompted by a determination that the top stringer joints at rib 18 are an area of uniform stress distribution, which indicates that cracks may develop in adjacent stringers at the same time. We are issuing this AD to detect and correct damage

(including cracking) at the stringer joints, which could reduce the structural integrity of the wing.

#### (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

## (g) Definitions

For the purposes of this AD, the definitions in paragraphs (g)(1) through (g)(5) of this AD apply.

- (1) Group 1 airplanes are defined as Airbus Model A300 B4-603, B4-605R, B4-620, B4-622, and B4-622R airplanes.
- (2) Group 2 airplanes are defined as Airbus Model A300 C4-605R Variant F and F4-605R (if in pre-modification 12699 configuration) airplanes.
- (3) Short range (SR) is defined as airplanes with an average flight time of less than 1.5 flight hours per flight cycle.
- (4) Long range (LR) is defined as airplanes with an average flight time equal to or higher than 1.5 flight hours per flight cycle.
- (5) For determining the "short range" and "long range" airplanes, the average flight time is the total accumulated flight hours, counted from take-off to touch-down, divided by the total accumulated flight cycles at the effective date of this AD.

## (h) Inspection and Modification

Not before exceeding the applicable lower thresholds as specified in table 1 to paragraph (h) of this AD, and within the compliance times specified in paragraphs (h)(1), (h)(2), (h)(3), and (h)(4) of this AD, as applicable: Accomplish a detailed visual

inspection for damage (including cracking) of the upper wing skin and top stringer joints at rib 18 on both wings, do all applicable corrective actions, and do the applicable modification, including related investigative and corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017, except as required by paragraph (i) of this AD. Do all applicable modifications, related investigative actions, and corrective actions before further flight.

- (1) For Group 1, LR airplanes: Inspect at the time specified in paragraph (h)(1)(i) or (h)(1)(ii) of this AD, whichever occurs later.
- (i) Before exceeding 32,500 flight cycles or 70,300 flight hours, whichever occurs first since first flight of the airplane.
- (ii) Within 700 flight cycles, 1,500 flight hours, or 12 months, whichever occurs first after the effective date of this AD.
- (2) For Group 1, SR airplanes: Inspect at the time specified in paragraphs (h)(2)(i) or (h)(2)(ii) of this AD, whichever occurs later.
- (i) Before exceeding 35,100 flight cycles or 52,600 flight hours, whichever occurs first since the first flight of the airplane.
- (ii) Within 700 flight cycles or 1,000 flight hours, or 12 months, whichever occurs first after the effective date of this AD.
- (3) For Group 2, LR airplanes: Inspect before exceeding 35,000 flight cycles or 75,700 flight hours, whichever occurs first since the first flight of the airplane.
- (4) For Group 2, SR airplanes: Inspect before exceeding 37,800 flight cycles or 56,700 flight hours, whichever occurs first since the first flight of the airplane.

Table 1 to paragraph (h) of this AD – Compliance Time Lower Thresholds

Applicable airplanes	Compliance time flight cycles (FC) or flight hours (FH), whichever occurs first since first flight of the airplane	
Group 1, LR	Not before exceeding 30,900 FC or 66,700 FH	
Group 1, SR	Not before exceeding 28,700 FC or 43,000 FH	
Group 2, LR	Not before exceeding 28,600 FC or 61,700 FH	
Group 2, SR	Not before exceeding 34,400 FC or 51,600 FH	

## (i) Service Information Exception

Where Airbus Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017, specifies to contact Airbus for appropriate action, and specifies that action as "RC" (Required for Compliance): Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (k)(2) of this AD.

## (j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A300-57-6118, dated June 30, 2015.

## (k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards

District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (1)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

- (2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.
- (3) Required for Compliance (RC): Except as required by paragraph (i) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

#### (l) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0023, dated February 10, 2017, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0710.
- (2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.
- (3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

# (m) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.
  - (i) Airbus Service Bulletin A300-57-6118, Revision 01, dated January 31, 2017.
  - (ii) Reserved.
- (3) For service information identified in this AD, contact Airbus SAS,

  Airworthiness Office EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex,

  France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airwortheas@airbus.com; Internet http://www.airbus.com.

(4) You may view this service information at the FAA, Transport Standards

Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this

material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the

National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on November 3, 2017.

Jeffrey E. Duven, Director, System Oversight Division, Aircraft Certification Service.

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